

Parliamentary Standing Committee on Public Works

REPORT

relating to the proposal for the

DEVELOPMENT OF RAAF BASE EAST SALE, VICTORIA, STAGE I

(Thirteenth Report of 1982)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

FOR SENATOR FOREMAN

In accordance with the provisions of the Public Works Committee Act 1969, I present the Reports relating to the following proposed works:

- (1) STAGE 1 CONSTRUCTION OF NEW WORKS AND UPGRADING
 OF EXISTING FACILITIES FOR THE NEW TACTICAL
 FIGHTER PROJECT AT FISHERMENS BEND, MELBOURNE;
 - (2) DEVELOPMENT OF RAAF BASE EAST SALE, VICTORIA, STAGE 1;
 - (3) DEVELOPMENT OF THE MILITARY AREA AT WOODSIDE, SOUTH AUSTRALIA FOR THE 16TH AIR DEFENCE REGIMENT: AND
 - (4) CONSTRUCTION OF AN ENGINEERING TRAINING CENTRE, PASADENA, SOUTH AUSTRALIA, FOR TELECOM AUSTRALIA.

28 October 1982.

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REPORT

relating to the proposal for the

DEVELOPMENT OF RAAF BASE EAST SALE, VICTORIA, STAGE 1

(Thirteenth Report of 1982)

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS (Twenty-sixth Committee)

Melville Harold Bungey, Esq., M.P. (Chairman) James Leslie McMahon, Esq., M.P. (Vice-Chairman) ⁵

Senate

House of Representatives

Senator Dominic John Foreman ³
Senator Bernard Francis Kilgariff
Senator John Raymond Martyr ⁴
Senator Jean Isabel Melzer ¹
Senator Harold William Young ².

David Bruce Cowan, Esq., M.F. Benjamin Charles Humphreys, Esq, M.P. Urquhart Edward Innes, Esq., M.P. Murray Evan Sainsbury, Esq., M.P.

- Retired 30 June 1981.
- Ceased to be member on election as President of the Senate on 18 August 1981.
- 3 Appointed 25 August 1981.
- 4 Appointed 25 August 1981. .
- 5 Appointed Vice-Chairman 27 August 198T.

PUBLIC: WORKS: COMMITTEE ACT 1969 ORDER UNDER SUB-SECTION 18(4)

I, SIR ZELMAN COWEN, the Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, in pursuance of Sub-Section 18(4) of the <u>Public Works Committee Act</u> 1969, hereby, by this Order, declare that the public work described in the schedule be referred to the Parliamentary Standing Committee on Public Works for consideration and report.

SCHEDULE.

DEVELOPMENT OF RAAF BASE EAST SALE, VICTORIA, STAGE 1

Given under my Hand and the Great Seal of Australia on 16 July 1982

L.S.

ZELMAN COWEN
Governor-General

By His Excellency's Command,

RALPH J. HUNT

Minister of State for Transport and Construction

WITNESSES

- Bull, M.W., Esq., Chairman, Lake Tyers Aboriginal Trust, P.O. Box 11, Lakes Entrance, Victoria
- Cole, K.H., Esq., Associate Director, Projects,
 Department of Transport and Construction,
 Tivoli Court, 239-241 Bourke Street,
 Melbourne, Victoria
- Dyke, Group Captain G., Officer Commanding, RAAF Base, East Sale, Victoria
- Garwood, T.C., Esq., Assistant Director, Vic/Tas, Aboriginal Development Commission, 4th Floor, Lewis House, 766 Elizabeth Street, Melbourne, Victoria
- Gurevitch, Group Captain R.N., Director of Facilities, Planning and Programming, Department of Defence, Russell Offices, Canberra, Australian Capital Territory
- Lessels, Air Commodore J.D.G., O.B.E., Director-General, Accommodation and Works -Air Force, Department of Defence, Russell Offices, Canberra, Australian Capital Territory
- McNeill, A.L., Esq., Building Adviser, Lake Tyers Aboriginal Trust, P.O. Box 11, Lakes Entrance, Victoria
- Paice, B.R., Esq., Project Manager, Department of Transport and Construction, Tivoli Court, 239-241 Bourke Street, Melbourne, Victoria
- Williams, M.B., Esq., Chief Architect (Defence and Aviation), Department of Transport and Construction, 470 Northbourne Avenue, Dickson, Australian Capital Territory

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ILLUSTRATIONS:

Locality Plan . A Site Plan B

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

DEVELOPMENT OF RAAF BASE EAST SALE, VICTORIA STAGE 1

REPORT

On 16 July 1982, His Excellency the Governor-General in Council referred to the Parliamentary Standing Committee on Public Works for consideration and report to Parliament the proposed development of RAAF Base East Sale, Victoria Stage 1.

The Committee has the honour to report as follows:

THE REFERENCE

- the proposal is for the provision of new buildings to upgrade and supplement the existing training and associated supporting facilities at RAAF Base East Sale, Victoria. The units involved comprise the School of Air Traffic Control, School of Photography, Central Flying School, Base Security Control Centre, Maintenance Squadron Headquarters/Field Training Section and the School of Air Navigation (SAN). The proposal also includes a HS748 Flight Line/SAN Flying Squadron Building, Fire Station, Guard Dog Complex and Communications/EDPCentre, officers' sleeping accommodation, airmen's sleeping accommodation and engineering services.
- 2. The estimated cost of the proposed work when referred to the Committee was \$15.5 million at April 1982 prices.

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THE COMMITTEE'S INVESTIGATION

- 3. The Committee received written submissions and drawings from the Department of Defence and the Department of Transport and Construction. The Committee inspected the existing facilities at RAAF Base East Sale, the sites for the proposed buildings and held a public hearing at the Base on 25 October 1982.
- 4. A written submission was received from the Aboriginal Development Commission and evidence taken from its representatives at the hearing concerning the utilisation of bricks made by the Lake Tyers Aboriginal community.
- 5. The Committee's proceedings will be printed as Minutes of Evidence.

BACKGROUND

- 6. RAAF Base East Sale was established in April 1943 and is located about seven kilometres east of the City of Sale. Other airfields including West Sale and Bairnsdale were also developed in the East Gippsland area during the Second World War.
- 7. The area is suitable for flying training because it is flat and extensive air space is available. The Base has an area of 790 hectares in which are contained two runways, operational, technical and domestic facilities.
- 8. The role of East Sale has remained primarily that of a flying training base, No. 1 Operational Training Unit being the first unit to be established. After World War II, with the rationalisation of RAAF operations, RAAF activities in the East Gippsland area were centralised at East Sale.

- 9. The following units were formed at or relocated to East Sale:
 - School of Air Navigation 1946
 - Central Flying School 1947
 - School of Photography 1952
 - Maintenance Squadron East Sale 1952
 - School of Air Traffic Control 1981
- 10. Apart from messing facilities, some technical facilities and sleeping accommodation, the balance of facilities at East Sale are generally the original temporary timber buildings and huts which were constructed during World War II.
- 11. There are 381 married quarters consisting of:
 - 94 RAAF owned houses and 287 provided under the Commonwealth State Housing Agreement
 - 62 are located on the Base and
 - 319 spread throughout the City of Sale.

THE NEED

- 12. School of Air Navigation The School's primary role is to train aircrew navigators and has two courses each of 18 students per year. Following completion of a ten week Initial Officer's Training Course at RAAF Base Point Cook, personnel selected for air navigation undergo a 53 week Navigators' Course, graduating as navigators. Selected navigators return to SAN for post graduate training after a period of flying duties.
- 13. Royal Australian Navy Observers also undergo a 40 week training at SAN after completing preliminary training elsewhere. SAN also provides instruction to RAAF pilots in electronic warfare.

- 9. The following units were formed at or relocated to East Sale:
 - School of Air Navigation 1946
 - Central Flying School 1947
 - School of Photography 1952
 - Maintenance Squadron East Sale 1952
 - School of Air Traffic Control 1981
- 10. Apart from messing facilities, some technical facilities and sleeping accommodation, the balance of facilities at East Sale are generally the original temporary timber buildings and huts which were constructed during World War II.
- 11. There are 381 married quarters consisting of:
 - 94 RAAF owned houses provided under the Commonwealth State Housing Agreement
 - 62 RAAF owned houses located on the Base and
 - 230 spread throughout the City of Sale.

THE NEED

- 12. School of Air Navigation

 The School's primary

 role is to train aircrew navigators and has two courses each

 of 18 students per year. Following completion of a ten week

 Initial Officer's Training Course at RAAF Base Point Cook,

 personnel selected for air navigation undergo a 53 week

 Navigators Course, graduating as navigators. Selected

 navigators return to SAN for post graduate training after

 a period of flying duties.
- 13. Royal Australian Navy Observers also undergo a 40 week training at SAN after completing preliminary training elsewhere. SAN also provides instruction to RAAF pilots in electronic warfare.

- 14. Existing Facilities The School has one permanent building containing a computerised synthetic navigation trainer. Apart from that building the rest are old huts constructed to meet wartime needs and comprise nine old timber, corrugated iron and asbestos buildings which lack insulation and noise attenuation. They are unsuitable for renovation or upgrading and are widely dispersed.
- 15. Central Flying School The role of Central Flying School is to provide three Flying Instructor training courses per year consisting of 12 students per course. Besides training its own pilots the RAAF also trains most of the Navy, Army and overseas students whose courses are being paid from Defence Co-operation Project funds. Refresher flying training, pilot conversions, grading of instrument rating examiners and flying instructors and the study of flying matters and techniques are also conducted at the School.
- 16. Existing Facilities Central Flying School occupies five old huts of World War II vintage which are not regarded as a proper education facility particularly as there is no sound attenuation from the nearby airfield operations.
- 17. School of Photography Specialist training of photographers in aerial and ground photography is provided at the School for both airmen and officers. Airmen undergo initial recruit training at RAAF Base Edinburgh before undertaking a course of 30 weeks in basic photography. Those selected for promotion to sergeant undergo a ten week advanced photographic course. Officers appointed as unit photographic officers attend an eight weeks course. Other photographic courses of a specialist nature are also conducted at the School.

- 18. Existing Facilities The School consists of a complex of twelve old timber huts similar to those previously described. The buildings represent a fire hazard, particularly those with training darkrooms and chemical handling facilities. The huts also lack the rigidity necessary for handling photometry instruments.
- 19. <u>Maintenance Squadron</u> This squadron provides centralised aircraft maintenance for East Sale based aircraft.
- 20. Existing Facilities Apart from the Safety Equipment Section, Base Calibration Centre, Radio and Instrument Workshops, which are housed in permanent buildings the other maintenance facilities including the Maintenance Squadron Headquarters and Field Training Section are housed in old World War II huts. Their deficiencies and general unsuitability for their current use inhibit the efficiency of maintenance activities.
- School of Air Traffic Control (SATC) Air traffic control training was, until recently, carried out within the Central Flying School. On II May 1981 a separate School of Air Traffic was established. Its role is to provide basic training of all the Services' air traffic controllers and post graduate training and refresher courses of all RAAF air traffic controllers. Most RAAF personnel selected for air traffic control duties undergo initial officer training at RAAF Base Point Cook prior to proceeding to East Sale. The Air Traffic Control Course lasts 19 weeks and five courses, each of 15 students are conducted per year. All air traffic controllers early in their careers return to East Sale for Ground Controlled Approach training. Post graduate training in Area Control operations is presently conducted in Department of Aviation facilities in Melbourne, however with the completion of the proposed new Air Traffic Control building this training will be carried out at East Sale.

- 22. Existing Facilities

 The SATC buildings consist of five old World War II huts. They are unable to accommodate the new generation air traffic training equipments comprising radar simulators, which need environmental control and a computer controlled aerodrome approach simulation. This type of training of necessity is presently done on-the-job in the East Sale Control Tower and at Department of Aviation training facilities in Melbourne.
- 23. HS748 Flight Line/SAN Flying Squadron Building At present the SAN Flying Squadron is housed in cramped conditions in an old hut adjacent to the aircraft apron. The hut lacks sound attenuation measures and pilot and student navigator briefing is extremely difficult due to the noise of aircraft close by.
- 24. <u>Fire Station</u> The present facilities are divided into two locations, crash and domestic; the former lacks crew and training facilities and the latter is old, has no workshop, training or administrative facilities.
- 25. <u>Guard Dog Complex</u> There are only interim facilities provided for this recently established section comprising police dogs and their handlers. They consist of a concrete base on which temporary kennels are located.
- 26. <u>Communication/EDP Centre</u> The existing Communication Centre is of timber, asbestos cement and canite lining construction. Although some improvements have been made it still does not meet security standards. The canite linings have been condemmed by the Base Fire Officer.
- 27. The use of Electronic Data Processors (EDP) has expanded rapidly since their introduction in the 1970s and are now being relocated in purpose designed facilities.

- 28. Officers' Sleeping Accommodation Although there is currently an overall peak requirement for living-in accommodation for 123 officers, comprising 20 staff (of which four are senior officers), 95 under training and eight duty/transient personnel there is only permanent accommodation for 48 junior officers, leaving a total deficiency of 75. The accommodation proposed is for 60 new officer sleeping quarters, four of which are for senior officers. The residual deficiency of 15 will be met by the use of emergency quarters, or local motel accommodation, as the needs demand.
- 29. <u>Airmen's Sleeping Accommodation</u> There is an accommodation requirement for 139 living-in staff, 36 under training and 16 duty and transient personnel, a total of 191.
- 30. Permanent accommodation is available for 138 personnel leaving a deficiency of 53. New quarters are proposed for 48 airmen and the resultant deficiency of five will be accommodated in emergency quarters.
- 31. <u>Cadet and Senior NCO Quarters</u> There is adequate accommodation for the number of cadets and senior NCO's to be accommodated on the base.
- 32. <u>Emergency Quarters</u> Currently East Sale has 62 emergency quarters for officers located within eight wooden huts, seven of which are proposed for demolition because of their poor condition and so that the sites can be utilised for proposed new buildings. There are also 130 bed spaces for Other Ranks, located in eight tin huts, which are used for exercises and Air Training Corps camps and are being retained for that purpose.

- 33. Engineering Services The electrical, water and sewerage services on some of the existing sites are unable to meet the requirements of the proposed new buildings and will need replacement. Some of the sites for the proposed buildings have no services and will therefore also need new underground electrical, water and sewerage services.
- 34. There are presently some 16 separate intakes providing electricity to the Base, each being metered and billed to the RAAF by the State Electricity Commission. Due to the lack of a ring main there is no provision for emergency power to those installations on the Base isolated by a mains power failure.
- 35. To ensure electricity is obtained as economically as possible and that emergency power is available when required a new gring main with a single intake sub-station is required.
- 36. <u>Committee's Conclusion</u> Many of the existing buildings at RAAF Base East Sale are unsuitable for the training, administration, technical and domestic needs of the RAAF.
- 37. The buildings have reached the end of their economic life and need replacing.

THE PROPOSED WORKS

38. The new buildings will be constructed in two phases.

Phase A'

1. Sleeping Accommodation for four Senior and 56 Junior Officers: Officers' sleeping quarters will comprise four two storey buildings which will be constructed to accord with Services Scales and Standards and Design to Cost Target principles. They will replace existing emergency accommodation. All but one of the emergency accommodation blocks, returned for transient/emergency use, will be available for disposal when the new quarters are completed.

- 2. School of Air Traffic Control: The School will be a single storey structure, purpose designed to house the new generation air traffic control training simulators, administrative and instructors officers, dedicated simulator training rooms, electronic equipments maintenance and component storage rooms, theory classrooms with associated audio visual facilities and student amenites.
- 3. School of Photography: This is to be a single storey building which will house administrative and instructors' offices, lecture rooms, dedicated photographic processing darkrooms and workrooms. It will also contain sensitometry laboratory chemical mixing and storage facilities, Klimsch Camera and Kersamat processing rooms and student and staff amenities. The design will incorporate all necessary pollution control features to collect, treat and dispose all photographic processing generated trade wastes. Following the construction of the School the old buildings will be available for disposal.
- 4. Central Flying School (CFS). The new CFS will be a single storey building providing accommodation for administrative and instructors' offices, student briefing rooms, lecture rooms, an operations room and staff and student amenities.
- 5. Base Security Control Centre: A new Base Security
 Control Centre is proposed for construction at the entrance
 to the Base on the site occupied by the existing old RAAF
 police building. The new building will be purpose designed,
 of a single storey construction to accommodate the following:
 - Police services comprising a general enquiries office, investigation and interview rooms, administration offices, armoury, store, watch room, secure room, and staff amenities.
 - Guard Commander, gatekeeper facilities, accommodation for 13 staff and one detainee.

- 6. Maintenance Squadron Headquarters. This will consist of a single storey building to house the Maintenance Squadron Headquarters and Field Training Centre and will comprise administration offices, maintenance control section, drawing office, practical and theory classrooms, training aids storage and preparation space and staff and student amenities.
- 7. Engineering Services. All new facilities in Phase A development will be provided with the necessary water, sewerage, storm water reticulation and power, landscaping and roadworks.

Phase B

- 1. School of Air Navigation. This will be mainly a single storey building containing administrative and instructors' offices, specialist classrooms for electronic warfare and weapons systems training, secure area for weaponry and classified material, theatrette and staff and student amenities. On an upper level there will be an astro training room.
- 2. HS748 Flight Line/SAN Flying Squadron Building. A new single storey is proposed and will accommodate flight line facilities comprising a crew room, tarmac office and records section, safety equipment-in-use store and an aircraft hygiene section. The Flying Squadron facilities will comprise administration and planning offices, briefing room, crew change room, and amenities for both flight line and flying squadron personnel.
 - 3. Security Guard Dog Section. This facility will comprise a single storey building with an area fenced for dog kennels and exercise yard. The building will also provide facilities for dog handlers, veterinary care and feed preparation.
 - 4. Fire Station. The building will provide a watch room, ready rooms and dormitory for duty personnel, training rooms, staff amenities and garaging and servicing facilities for fire tenders and appliances. It will be constructed adjacent to the air traffic control tower.

- 5. Communications and Electronic Date Processing (EDP)
 Centre: This building will be of permanent construction
 incorporating security requirements consistent with its
 use. It will contain EDP and Communications rooms, secure
 on-line rooms, vault, paper store, three offices,
 maintenance workshop and staff amenities. It will be
 designed to facilitate the addition of a new Formation
 Headquarters, Base operations and Meteorology Section at
 a later date.
- 6. Airmen's Sleeping Quarters. The new quarters, housing 48 Other Ranks (O/Rs) will consist of three two storey buildings. The design, which will accord with Services Scales and Standards of Accommodation and Design to Cost Target principles will provide four man units with common room and ablutions.
- 7. Engineering Services. All necessary services, roadworks and landscaping to the proposed buildings of Phase B will be incorporated.
- 39. Construction details of the proposed works in Phase A and Phase B are at Appendix A of this report.
- 40. <u>Committee's Conclusion</u> The design of the proposed buildings is satisfactory.

THE SITES

- 41. The sites for the proposed work are within the perimeter of RAAF Base East Sale and are in accordance with the approved Master Plan. Details of location are shown in Plan B of this report.
- 42. The proposed facilities are located on the Base to their best functional advantages as determined by their associated work areas and predicted aircraft ground noise contours.

- 43. Generally the new buildings will be either
 - constructed on sites adjacent to the buildings they are to replace, or,
 - on the same site as the existing facility, necessitating temporary relocation of units to other buildings during the construction phase. Following completion of the new facilities the old buildings will be available for disposal.
- 44. <u>Committee's Conclusion</u> The sites selected for the proposed works are suitable.

ENVIRONMENTAL CONSIDERATIONS

- 45. With the exception of the School of Photography none of the proposed new facilities will generate other than domestic wastes which will be processed through the Base sewerage systems. The School of Photography has special requirements for the proper treatment of photographic processing generated trade wastes which will be incorporated in the building design.
- 46. With the exception of the Security Guard Dog Complex, all the proposed buildings replace existing ones and thereby do not create any significant impact on the Base environment.
- 47. The impact of RAAF Base East Sale operations on the City of Sale and the surrounding district has been the subject of an environmental assessment by the Department of Administrative Services.
- 48. The Administrative Procedures of the Environment.
 Protection (Impact of Proposals) Act 1974 have been satisfied.

RECREATIONAL AND SPORTING AMENITIES

- 49. In evidence, the Officer Commanding RAAF Base East Sale referred to the fact that available sporting facilities on the Base were less than Scales and Standards entitlements. In particular, the Base lacked a suitable gymnasium for indoor activities and squash courts. The Base presently only has one squash court of non-regular size and was located in a converted building.
- 50. The Committee was informed that by comparison with other RAAF bases, East Sale was not too badly off for such facilities and that a new physical fitness centre and additional squash courts are proposed as part of the Stage 2 works.
- 51. The Committee expresses the view that there appears to be a lack of concern on this Base as well as others in bringing sporting facilities up to the Scales and Standards laid down for such facilities.
- 52. The Committee believes that the upgrading of physical fitness facilities is important and an integral part of the upgrading of the training facilities presently contemplated in this reference.

ABORIGINAL MADE BRICKS

- 53. In its written submission, presented at the public hearing, the Aboriginal Development Commission recommended the utilisation of cement stabilised earth bricks made by the Lake Tyers Aboriginal Trust.
- 54. The Commission referred to the policy of the Department of Transport and Construction's Regional Offices consulting with the Department of Aboriginal Affairs as to the feasibility of using construction materials manufactured by Aboriginals where works proposed to be constructed were adjacent to areas with an Aboriginal population, in this case the Lake Tyers Aboriginal community.
- 55. In evidence, the Department of Construction stated the policy of using Aboriginal material will be observed on this project, subject, inter alia, to the suitability of the material for the purposes for which they are required and the delivery schedule.
- 56. Written evidence by the Department of Transport and Construction was amended to include the following sentence: "Cement stabilised earth block of the 'Cinva-Ram' type, manufactured by the Lake Tyres Aboriginal Trust, will be specified for a number of load bearing internal subdivisional walls".

PROGRAM

- 57. The works in this proposal represent Stage 1 of a planned two-stage development of the Base. The selection of projects for each phase of Stage I has been determined by anticipated cash flow, urgency of need of individual facilities and sequential construction scheduling.
- 58. The program for Phase A works is for the first contracts to be let in late 1983 with the completion of the work in 1987.

59. The program for Phase B works is for the letting of contracts in late 1985 with completion of the work in 1989.

FUTURE WORKS

60. Further works are required at East Sale to complete the replacement of temporary facilities with purpose designed buildings so that all units and personnel are accommodated in appropriate facilities.

LIMIT OF COST ESTIMATE

61. The revised limit of cost estimate for the proposed work is \$15.26 million at April 1982 prices and includes the following components:

Phase A	- .,	SM	
Building cost	•	6.90	
External works and	services	2.86	
	_	9.76	
Phase B			
Building cost		4.55	
External works and	services	0.95	
•		5.50	
	-		
	<u>Total</u>	ŞM	15.26

- 62. <u>Committee's Conclusion</u> The revised limit of cost estimate for the proposed works is \$15.26 million at April 1982 prices.
- 63. The Committee recommends the construction of the work in this reference.

RECOMMENDATIONS AND CONCLUSIONS

64. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

		Paragraph
1.	MANY OF THE EXISTING BUILDINGS AT RAAF BASE EAST SALE ARE UNSUITABLE FOR THE TRAINING, ADMINISTRATION, TECHNICAL AND DOMESTIC NEEDS OF THE RAAF.	36
2.	THE BUILDINGS HAVE REACHED THE END OF THEIR ECONOMIC LIFE AND NEED REPLACING.	37
3.	THE DESIGN OF THE PROPOSED BUILDINGS IS SATISFACTORY.	40
4.	THE SITES SELECTED FOR THE PROPOSED WORKS ARE SUITABLE.	. 44
5.	THE REVISED LIMIT OF COST ESTIMATE FOR THE PROPOSED WORKS IS \$15.26 MILLION AT APRIL 1982 PRICES.	₹ 62°
6.	THE COMMITTEE RECOMMENDS THE CONSTRUCTION OF THE WORK IN THIS REFERENCE.	63 [,]

(M.H. BINGEY)

Parliamentary Standing Committee on Public Works, Parliament House, CANBERRA, ACT

27 October 1982.

APPENDIX A

CONSTRUCTION

- Generally the buildings proposed will be of three basic types, instructional, domestic and special purpose. As such they have special operational and structural characteristics.
- 2. <u>Instructional Buildings</u> These buildings will be steel framed with reinforced concrete raft slabs and external brick veneer walls. The process areas of the School of Photography will be provided with a suspended reinforced concrete slab. Instructional buildings will be for the Schools of Air Traffic Control, Photography, Air Navigation, the Central Flying School and the Maintenance Squadron Headquarters and Field Training Section.
- 3. <u>Domestic Buildings</u> These buildings will include the officers and other ranks accommodation, the Security Guard Dog Complex, and the Base Security Control Centre. Structurally the sleeping blocks will be of load bearing solid brick construction. The single storey buildings will be brick veneer framed structures.
- 4. Special Purpose Buildings These will include the Communication/EDP Centre, the HS748 Flight Line/SAN Flying Squadron Building and the fire station. The Flight Line Flying Building and fire station will include measures to reduce aircraft noise. They will be of load bearing brick and reinforced concrete walls and reinforced concrete raft slabs and a reinforced concrete roof slab. Steel portal framed structures will be used over areas not sound proof.
- 5. Materials Materials will include matching brick work pre-coloured metal roofing and anodized aluminium windows.
- Internal sub-divisional walls will be steel stud framed with plasterboard lining.

- 7. Ceramic tiles will be provided to wet areas, laboratories, tea rooms and store rooms. Classrooms, offices and bedrooms will be carpeted. Computer flooring will be provided in the Communications EDP Centre. Ceilings will be suspended acoustic tiles in offices and classrooms. Laboratories, stores and wet areas will have suspended plasterboard ceilings. Cement stabilised earth block manufactured by Lake Tyres Aboriginal Trust have been specified for use in a number of load bearing sub-divisional walls.
- 8. <u>Airconditioning</u> Airconditioning will be provided to the sound proofed special purposes building and in the instructional building.
- 9. <u>Heating and Ventilation</u> Mechanical exhaust systems will be provided to special areas such as chemical rooms, photographic process areas and ablution areas. Accommodation buildings will be naturally ventilated and provided with domestic heaters.
- 10. <u>Electrical Services</u> Electricity supply to all buildings will be underground. Internal lighting and power will be provided in accordance with relevant codes and standards. Emergency and exit lighting will be provided in all buildings.
- 11. <u>Vehicle Movement Areas</u> Access to all facilities will be by the existing road system with some minor extensions. Car parking spaces will be provided by utilisting kerbside of existing roads, extending existing car parks and by constructing new off street car parks.
- 12. <u>Water Supply</u> The base storage capacity will be improved by elevating the height of the existing tower and improving pumping equipment. The reticulation system will be extended to service the new building areas.

- 13. Sewerage System Sewage from the new buildings will be discharged to the existing on-base treatment works which has sufficient capacity for increased load. Chemical pollutant wastes will be trapped and treated before entering the sewerage system. Water-borne discharges will be treated to conform with statutory State requirements.
- 14. Electric Supply and Reticulation The base power supply will be through a single high voltage intake, a new underground ring main will be established within the domestic area of the base. The central emergency power house will be relocated and its capacity upgraded.
- 15. <u>Landscaping</u> Landscaping for the development will include the implementation of the recommendation arising from an arboricultural study. It is proposed generally to retain the parkland quality of the base.
- 16. <u>Fire Protection</u> Automatic thermal fire detection and smoke detection systems, portable fire extinguishers and manual break-glass alarams will be installed within the buildings. The computers sub-floor spaces will be equipped with smoke detectors and gas flooding systems.
- 17. The Fire alarm signals will be monitored at the East Sale Base fire station and security control centre. The existing water supply system will be upgraded and utilized for fire fighting with fire hose reels in all buildings and new hydrants located to service the new buildings.
- 18. Security System The existing security system will be upgraded and extended.



